

CLAIM SUMMARY DOCUMENT:

Claims 1-39 (Cancelled)

- ✓ Claim 40 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment, which recognizes a 150 kDA *T. equigenitalis* protein.
- ✓ Claim 41 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 40, in combination with at least one antibody or Fv, Fab or F(ab')² fragment thereof which recognize *T. equigenitalis* proteins selected from the group consisting of *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.
- ✓ Claim 42 (New) An isolated monoclonal antibody obtained by a process comprising:
fusing non-secreting murine myeloma cells with spleen cells from mice immunized against an inactivated strain of the species *T. equigenitalis* or extract(s) of such a strain,
cloning and selecting according to the capacity of their culture supernatant to recognize a 150 kDA *T. equigenitalis* protein,
recovering the required monoclonal antibody, and
optionally purifying said monoclonal antibody.

- ✓ Claim 43 (New) A method of obtaining a monoclonal antibody according to claim 40, comprising: *Fv, Fab, F(ab')²*

fusing non-secreting murine myeloma cells with spleen cells from mice immunized by means of a strain of the species *T. equigenitalis* or extract(s) from such a strain, screening hybridomas whose culture supernatants exhibit a positive reaction with a 150 kDa *T. equigenitalis* protein or a fragment thereof, selecting by cloning the hybridomas with respect to their reactivity, in relation to *T. equigenitalis*, recovering the monoclonal antibody, and optionally purifying said monoclonal antibody.

Claim 44 (New) A strain of hybridoma, which secretes a monoclonal antibody according to claim 40.

Claim 45 (New) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of a monoclonal antibody or Fv, Fab or F(ab')² fragment thereof according to claim 40, under conditions permitting a reaction of the antigen-antibody type, and

detecting any product formed in a reaction of the antigen-antibody type,
wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

Claim 46 (New) A method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

- (a) bringing a monoclonal antibody or fragment thereof according to claim 40, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and
- (b) detecting *the complex* formed in a reaction of the antigen-antibody type in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen, wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

Claim 47 (New) The method according to claim 45, further comprising blocking the non antigen-antibody reactions *Carried out prior to step (a)*

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Claim 48 (New) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

- a monoclonal antibody or fragment according to claim 40,
- a reagent for detecting the intended immunologic reaction,
- optionally, a reagent for blocking the non antigen-antibody reactions, and
- instructions for use.

Claim 49 (New) A ~~pharmaceutical~~ composition comprising a monoclonal antibody or fragment according to claim 40, in combination with a pharmaceutically inert vehicle.

Claim 50 (New) A kit according to claim 48, wherein said reagent for carrying out the intended immunologic reaction is selected from the group consisting of markers and buffers.

Claim 51 (New) A kit according to claim 48, wherein a reagent for blocking the non antigenic-antibody reaction is included and said reagent is mouse serum.

Claim 52 (New) The method according to claim 47, wherein the non antigen-
antibody reaction is blocked by saturation of the specimen obtained by means of a serum
from which anti-*T. equigenitalis* antibodies have been removed.

Claim 53 (New) The method according to claim 46, further comprising blocking
the non antigen-antibody reactions.

Claim 54 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')²
fragment according to claim 40, in combination with antibodies or Fv, Fab or F(ab')²
fragments thereof which recognize *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22
(LPS) kDA.

Claim 55 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment
according to claim 40, in combination with an antibody or Fv, Fab or F(ab')² fragment
thereof which recognizes a 120 kDA *T. equigenitalis* protein.

Claim 56 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 40, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 52.7 kDA *T. equigenitalis* protein.

Claim 57 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 40, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 22 (LPS) kDA *T. equigenitalis* protein.

Claim 58 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 42, in combination with at least one antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a *T. equigenitalis* protein selected from the group consisting of *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

Claim 59 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 42, in combination with antibodies or Fv, Fab or F(ab')² fragments thereof which recognize *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

Claim 60 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 42, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 120 kDA *T. equigenitalis* protein.

Claim 61 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 42, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 52.7 kDA *T. equigenitalis* protein.

Claim 62 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 42, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 22 (LPS) kDA *T. equigenitalis* protein.

Claim 63 (New) A strain of hybridoma, which secretes the monoclonal antibody according to claim 42.

I Claim 64 (New) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:
bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of the monoclonal antibodies or Fv, Fab or F(ab')² fragments thereof according to claim 41, under conditions permitting a reaction of the antigen-antibody type, and
detecting any product formed in a reaction of the antigen-antibody type,
wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

Claim 65 (New) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of the monoclonal antibody or Fv, Fab or F(ab')² fragment thereof according to claim 42, under conditions permitting a reaction of the antigen-antibody type, and

detecting any product formed in a reaction of the antigen-antibody type, wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

Claim 66 (New) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

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bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of the monoclonal antibodies or Fv, Fab or F(ab')² fragments thereof according to claim 54, under conditions permitting a reaction of the antigen-antibody type, and

detecting any product formed in a reaction of the antigen-antibody type, wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

Claim 67 (New) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of the monoclonal antibodies or Fv, Fab or F(ab')² fragments thereof according to claim 58, under conditions permitting a reaction of the antigen-antibody type, and
detecting any product formed in a reaction of the antigen-antibody type, wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

Claim 68 (New) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:
bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of the monoclonal antibodies or Fv, Fab or F(ab')² fragments thereof according to claim 59, under conditions permitting a reaction of the antigen-antibody type, and
detecting any product formed in a reaction of the antigen-antibody type, wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

Claim 69 (New) A method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

(a) bringing a monoclonal antibody or fragment thereof according to claim 41, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and

(b) detecting any product formed in a reaction of the antigen-antibody type in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen, wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

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Claim 70 (New) A method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

(a) bringing a monoclonal antibody or fragment thereof according to claim 42, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and

(b) detecting any product formed in a reaction of the antigen-antibody type in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen, wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

Claim 71 (New) A method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

(a) bringing a monoclonal antibody or fragment thereof according to claim 54, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and

(b) detecting any product formed in a reaction of the antigen-antibody type in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen, wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

Claim 72 (New) A method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

(a) bringing a monoclonal antibody or fragment thereof according to claim 58, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and

(b) detecting any product formed in a reaction of the antigen-antibody type in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen, wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

Claim 73 (New) A method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

(a) bringing a monoclonal antibody or fragment thereof according to claim 59, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and

(b) detecting any product formed in a reaction of the antigen-antibody type in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen, wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

Claim 74 (New) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

the monoclonal antibodies or fragments according to claim 41,
reagents for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody reactions, and
instructions for use.

Claim 75 (New) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

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a monoclonal antibody or fragment according to claim 42,
reagents for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody reactions, and
instructions for use.

Claim 76 (New) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

the monoclonal antibodies or fragments according to claim 54,
reagents for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody reactions, and

instructions for use.

Claim 77 (New) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

the monoclonal antibodies or fragments according to claim 58,
reagents for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody reactions, and
instructions for use.

Claim 78 (New) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

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the monoclonal antibodies or fragments according to claim 59,
reagents, for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody reactions, and
instructions for use.

Claim 79 (New) A pharmaceutical composition comprising the monoclonal antibodies or fragments according to claim 41, in combination with a pharmaceutically inert vehicle.

Claim 80 (New) A pharmaceutical composition comprising the monoclonal antibody or fragment according to claim 42, in combination with a pharmaceutically inert vehicle.

Claim 81 (New) A pharmaceutical composition comprising the monoclonal antibodies or fragments according to claim 54, in combination with a pharmaceutically inert vehicle.

Claim 82 (New) A pharmaceutical composition comprising the monoclonal antibodies or fragments according to claim 58, in combination with a pharmaceutically inert vehicle.

Claim 83 (New) A pharmaceutical composition comprising the monoclonal antibodies or fragments according to claim 59, in combination with a pharmaceutically inert vehicle.
